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Via Electronic Submission

June 30, 2011

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

**Re: Notice of Oral *Ex Parte* Communication
PS Docket No. 06-229**

Dear Ms. Dortch:

This letter is to inform you that on Wednesday, June 29, Layer 2 Connections, LLC (“Layer 2 Connections”) representatives Marcus Le Maitre, Principal, Susan Nelson, Managing Principal and I met in person in Washington DC with FCC Public Safety and Homeland Security Bureau (PSHSB) representatives (James Barnett, Jennifer Manner, Genaro Fullano, and Behzad Ghaffari).

Layer 2 Connections reiterated previously discussed opinions which described ways in which the safety and productivity of first responders might be improved. We described how multiple similar or dissimilar networks – whether wired, wireless or satellite – can be connected together to act and behave as one in order to increase the resilience, availability and quantity of bandwidth to users. We reminded the attendees that we described this capability as a Virtual Wide Area Network (VWAN).

Layer 2 Connections focused comments on several topics:

1. *The transition from commercial and private networks used by public safety agencies today to the emerging 700 MHz Public Safety Broadband network(s).* We commented that this transition was the most important time for establishing best practice for inter-network handoff because public safety agencies will be grappling with an important migration from a variety of public and private wireless data network technologies to the LTE Public Safety Broadband Network (PSBN). The ability for these agencies to leverage both existing private and commercial networks used today and emerging networks simultaneously and seamlessly will significantly mitigate any coverage, reliability and capacity issues during the transition period.

2. *How both the definition of seamless network handoff – for both Intra-RAT (Radio Access Technology) and Inter-RAT handoff – and the timing of these requirements are important to first responders.* We commented that an important part of providing handoff between networks (regardless of what technology on which they are based) is the gathering of metrics that assist in making decisions about when to use networks and when to avoid them. Steering an agent from a network that is viable but congested onto a network that is not viable will cause difficulties. We commentated that performance metrics need to be gathered in real-time because network performance can change both rapidly and drastically based on a variety of external factors. We commented that the handoff must be so seamless to the user that it will not be noticeable even when using real-time protocols such as VoIP and Video; this requires the alternative bearer to be queued and ready before the handoff occurs.

The above together describes a “Make-before-break” handoff. We reiterated that an FCC mandate requiring that a network handoff be a Make-before-Break seamless handoff (vs. allowing any break at all) is crucially important to the situational awareness, productivity and safety of the first responder. We also encouraged the FCC to pull forward the requirements of inter-network handoff (currently termed Inter-RAT handoff, although it is our opinion that this term requires further definition) into the current rulemaking, as there is no more important time than the transition from existing commercial and legacy networks to enable seamless Make-before-Break handoff. In such way, these networks can also continue to be used for resilience once the PSBN is built out.

3. *The impact that over-the-top VPNs were likely to have on the quality of service mechanisms being considered for the LTE Public Safety Broadband Network.* We commented that we believed a considerable number of public safety agencies are likely to require applications to use a specific VPN technology which will encrypt packets streams in a manner that will make it difficult or impossible for LTE QoS mechanisms to be deployed. We commented that we believed that additional work was needed to better define the role of over-the-top VPNs in public safety communications in order to better understand the significant impact that they play in delivering effective and efficient communications. We encouraged the FCC to consider an alternative view to the End-to-End experience for a first responder, inclusive of the applications and VPN. We stressed that Inter-RAT handoff can be best achieved today via Mobile VPNs that will work with the PSBN and other commercial and private data networks. We committed to updating this and our prior guidance with further detail.

The attached presentation was also used in the discussion.

Layer 2 Connections is a small, woman-owned business based in North Carolina with experience serving the public safety community with voice and data communications.

If you have any questions or comments regarding this notice, please do not hesitate to contact me.

Sincerely,

/s/ Pascal de Hesselle

Pascal de Hesselle
Principal, Layer 2 Connections, LLC

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